Wildland Fire Management RD&A
Decision Support
Standard Operating Procedures and FAQs
Version 2014 - 3.0

Integrating
science, technology
and fire management.

Wildland Fire Management RD&A

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Introduction

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SECTION 1: Wildland Fire Management RD&A (WFM RD&A) and National Fire Decision Support Center (NFDSC) Background Information

What is the National Fire Decision Support Center (NFDSC)?

The National Fire Decision Support Center (NFDSC) (Figure 1.) was established through a formal collaborative effort between the U.S. Forest Service Fire and Aviation Management and Research and Development. This Center serves as a single focal point to support goals of improving strategic and tactical decision making on wildland fires. The Center provides advanced and consistent decision support information, improving the capability to make strategic decisions through a directed research program, while increasing awareness and application of decision support information in risk-informed decision making. The NFDSC is staffed to support wildland fire management decision making by directly linking fire and economic sciences to operational and management applications such as those found in the Wildland Fire Decision Support System (WFDSS).

This document specifically addresses the capabilities of the Wildland Fire Management RD&A (WFM RD&A) which is comprised of team members from USFS research and management programs and the Department of Interior. Nationwide decision support services became available on March 1, 2010. Decision support can be obtained for any location in the United States, when a wildland fire occurs.
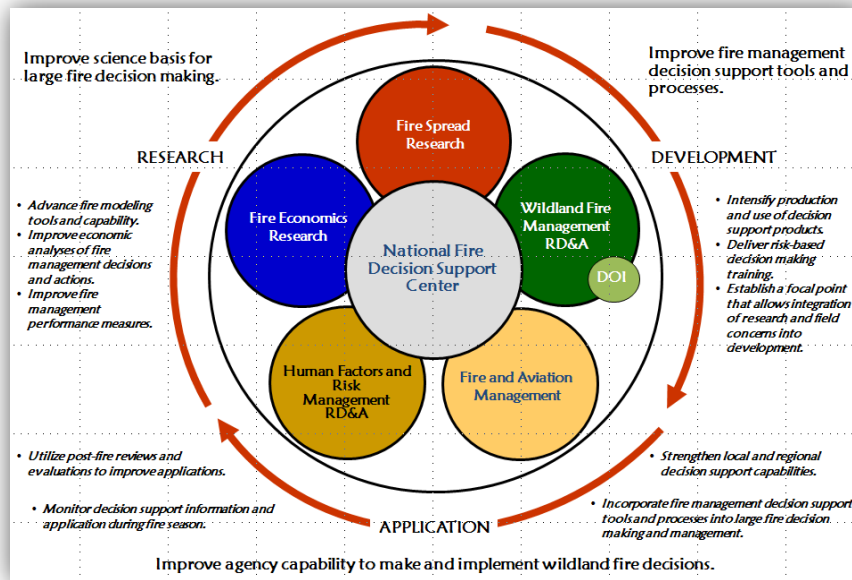
Figure 1. Collaborative programs within the entire National Fire Decision Support Center (NFDSC). Analysts and decision support personnel responding to wildland fires are housed in the WFM RD&A, represented by the green circle.

Specific objectives of the WFM RD&A include:

1) Providing timely decision support analyses for wildland fires;

2) Developing, improving, and increasing production and operational use of decision support products;

3) Providing practical mentoring and other means to strengthen decision support capacity at regional and field levels, and achieve refresher and currency training for analysts;

4) Developing a comprehensive plan for integrating new knowledge into existing wildland fire curricula; and

 5) Providing a primary point of contact for communication between scientists and participating field managers, and as an advisor to program administrators at local, regional, and national levels.

What Types of Wildland Fire Decision Support can the WFM RD&A Provide?

The WFM RD&A will provide support in fire behavior analysis and decision documentation related to the Wildland Fire Decision Support System (WFDSS) and wildland fire management activities.

Analytical tool support may include but is not limited to:
- Fire behavior analysis
  - Basic, Short-term and Near-term fire behavior models (Flammap, FARSITE),
  - Fire Spread Probability (FSPro)
- Fire economic models - Stratified Cost Index and Values as Risk Summaries
- Smoke Modeling tools linked to WFDSS

WFDSS Decision support may include but is not limited to assistance with:
- Program Navigation
- Functionality of the Decision Editor
- Decision Process and content
- User Roles/Incident Privileges

Assistance in development of fire management strategies and long term planning can be provided to the host unit upon request.

Fire Behavior Analytical Tool outputs, results, limitations, and assumptions

Individuals who utilize information provided by the fire behavior tools within WFDSS must have a basic understanding of how the models work, what the output/results mean, and the limitations and assumptions associated with the models.   Analysts will make every effort to explain the model limitations and assumptions and interpret results for requesting units. However it is also the responsibility of the requesting unit to ask for further clarification or information if needed to ensure proper use of the tools. The WFDSS Help provides some brief information about the fire behavior models, what the output/results mean (interpretation), and assumptions and limitations of the models. In the WFDSS Help, search for topics called, "FAQs for Automated Basic Fire Behavior (BSB), Short Term Fire Behavior (STFB), Near Term Fire Behavior (NTFB)" and "FSPro Overview" or see the WFDSS Home Page for "Fire Behavior" documents.

More information regarding the WFM RD&A is available at www.wfmrda.nwcg.gov

Who Works for the WFM RD&A? - Available Support Staff
- The WFM RD&A is staffed with an On-Call Coordinator 365 days a year and can be reached by calling 208-473-8107.
- Fulltime Analysts work in a variety of locations throughout the western United States and are on-call throughout the year; they are reached through the WFM RD&A On-Call Coordinator.
- Other analysts trained in the use of fire behavior prediction tools from around the country are also available on a "call-when-needed basis". These analysts generally work for local units, regional offices and coordination centers; their involvement with the WFM RD&A depends on their availability.

Based upon need, staffing will be determined by the WFM RD&A On-Call Coordinator to provide the best quality WFDSS Decision assistance and fire behavior products. Staffing may consist of individuals or combinations of individuals qualified as FBAN, LTAN, GSAN, possessing the Fire Behavior Specialist role in WFDSS or WFDSS Decision expertise. The ratio of individuals with these different qualifications will vary according to incident need, location, and priorities based on emerging and ongoing incidents inside and outside the Geographic Area and Nationally.

What are the Potential Support Scenarios the WFM RD&A will be involved in?
The WFM RD&A is designed to be flexible and adaptable to the needs of the situation. The best support option will be determined through negotiation between the requesting unit, Geographic Area Editors (GA Editor) or representatives and the WFM RD&A On-Call Coordinator. Virtual or on-site support may be provided in any of the following scenarios by assisting a local analyst, reviewing work, providing input, or producing model outputs remotely, as well as aiding the unit with decision documentation. When necessary, a Decision Support (DSC) Team Lead will be identified and mobilized if needed to coordinate analysts assigned in any of the potential scenarios.

![Wildland Fire Management RD&A logo] Integrating science, technology and fire management.

Wildland Fire Management RD&A

In all scenarios establishing a clear chain of command, primary points of contact and a prioritization process for incident support will be critical. It will be imperative that coordination with the Geographic Area Predictive Services and Intelligence units also takes place.

All resource mobilizations will follow proper dispatch procedures. Examples of potential support scenarios are described below (see also Figure 2 and 3 below for Graphical Examples):

- **Local Support** –The GA Editor or Representative will attempt to find a local individual to support the fire behavior or WFDSS decision request by referencing the list of qualified individuals from that area. Assistance at the local level can be negotiated through the GA Editor or representative. If the GA Editor cannot find local assistance, they can contact the WFM RD&A On-Call Coordinator.
- **Area/Regional Support** – This occurs when several individual units within a particular area need support. This could occur within one Region or across Geographic Area Coordination Center (GACC) boundaries.
- **Geographic Area Coordination Center (GACC) –** In some instances, a Decision Support Center may be stood up within a Geographic Area Coordination Center as determined through their representative or primary contact to support multiple incidents.
- **Area Command/MAC Group Support**– As identified by an Area Command Team or MAC Group a Decision Support Center may be established to work directly for them to support multiple incidents.
- **National** – A Decision Support Center may be established to support priority incidents at the National level. Communication with Geographic Areas, Incident Management Teams, and potentially MAC Groups or Area Command teams will be critical for success. This may involve prepositioning analysts at various locations in anticipation of new fires or as incidents escalate.

WFM RD&A Work Flow and Decision Support Request Process

Figures 2 and 3 below demonstrate the workflow from the local level, through the geographic area to the WFM RD&A involving a simple organization and a more complex organization at the geographic, regional, or national level.
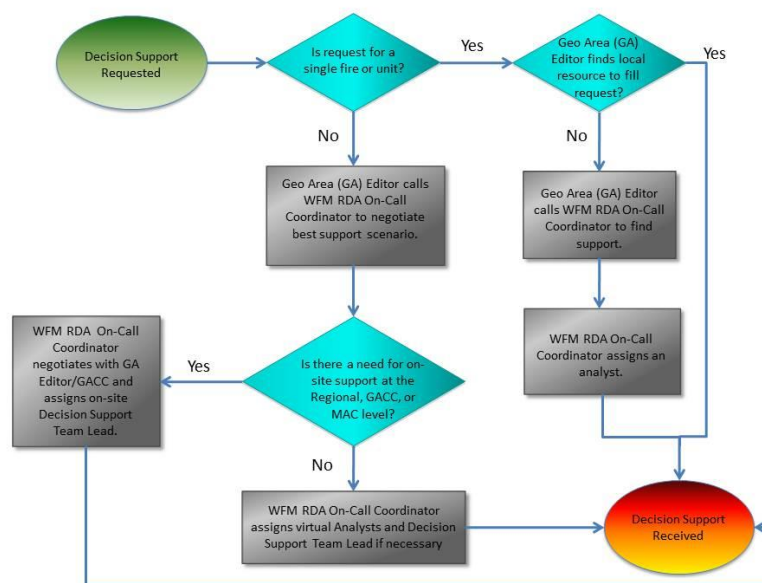
Figure 2. Decision Support request process from local unit, through Geographic Area to the WFM RD&A
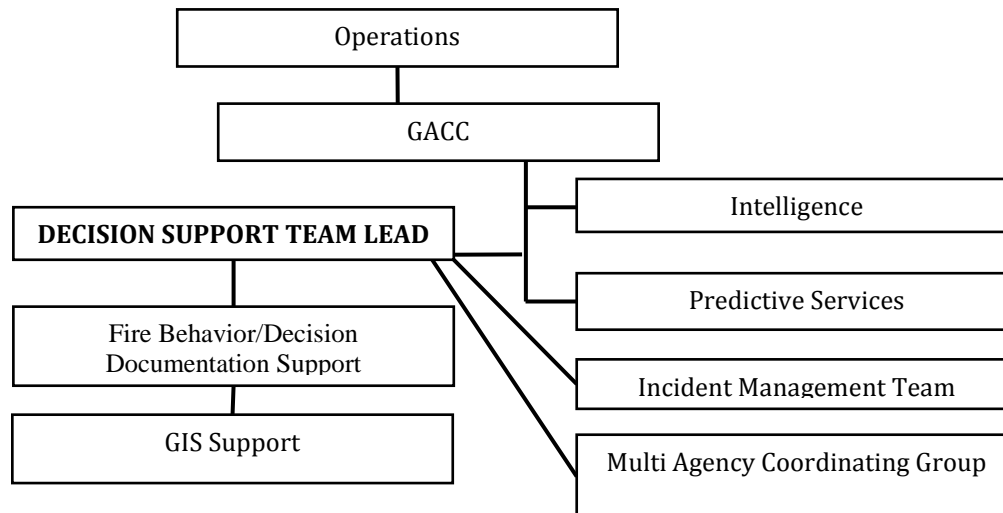
Figure 3. Example of a WFM RD&A organization established at a Geographic Area Coordination Center

SECTION 2: Information for GA EDITORS/GACC and REGIONAL LEVEL MANAGERS - Utilizing WFM RD&A to support Incidents

How do I explain the process for a local unit to request Fire Behavior Support?

Support for Fire Behavior requests can be obtained several different ways depending on the requesting unit's needs. In general local units should follow these steps to request assistance:

- The local unit can call their GA Editor directly
- A local unit requests support through the WFDSS program using the "Request Fire Behavior Support" button found on the left menu
  a. If the "Request Fire Behavior Support" button is used and no communication is received within a reasonable timeframe, or if the request is time sensitive, the local unit should call the Geographic Area Editor
- If a local unit is unable to communicate with their GA Editor then they should call the WFM RD&A On-Call Coordinator at **208-473-8107**.

As a Geographic Area Editor, how can I monitor fire behavior requests from the field?

A Geographic Area Editor or Representative should monitor the "Request for Fire Behavior Support" screen in WFDSS or subscribe to the text message/email notification feed of requests to determine support needs in the field. This will assist in identifying emerging incidents in the area and getting assistance to the field. From this request the GA Editor can assist the unit in finding a local person to support them using the "Call-when-needed (CWN) Fire Behavior/Decision Support Specialist List" (i.e. CWN List).

Contact the WFM RD&A to obtain a current copy of the CWN List (it will be updated throughout the fire season) or to be added to the text message/email feed.

The WFM RD&A On-Call Coordinator will also monitor the "Request for Fire Behavior Support" screen to coordinate with the GA Editor if no support has been given.

How do I explain the process for a local unit to request WFDSS Decision support?

Support for WFDSS Decision requests can be obtained several different ways depending on the requesting unit's needs. In general local units should follow these steps to request assistance:

1. Utilize the HELP menu in the WFDSS program
2. If the question cannot be answered using the online WFDSS HELP then a call should be placed to the WFDSS Help Desk at **1-866-224-7677 or 1-360-326-6002**
3. If the question is beyond the scope of the WFDSS HELP Desk then a local unit can contact their GA Editor If the local unit cannot get help through the WFDSS Help Desk and is unable to communicate with their GA Editor then a call should be placed to the WFM RD&A On-Call Coordinator at **1-208-473-8107**

How does a GA Editor/GACC/Regional Office Request WFM RD&A Assistance for an individual unit or incident?

If no Geographic Area resources are available to support the request or if the analysis needs are too complex, coordination with the WFM RD&A should occur to determine the best course of action. The Geographic Area Editor or Representative for the Geographic Area will contact the WFM RD&A On-Call Coordinator at **208-473-8107.** Once a request has been made the WFM RD&A On-Call Coordinator will determine the priority of the incident(s) and coordinate with the requesting Geographic Area to provide the proper level of support.

How does the WFM RD&A Prioritize Incidents during a busy time period?

Fires of national significance, of high complexity, or have critical values at risk will be given priority over less complex incidents. Therefore it is important that Geographic Areas become familiar with their local analysts so incidents of lower complexity and priority can be supported locally when possible.

Additionally it will be important to identify emerging incidents early so support can be provided utilizing valuable tools for decision making to assist in keeping the fire from becoming nationally significant.

What kind of information should the GA Editor gather from the requesting unit before contacting the WFM RD&A for assistance?

Not all of this information may be known, but the more that can be gathered the easier it will be for the WFM RD&A On-Call Coordinator to assign the appropriate specialist.

1. Incident Name
2. Contact person and their role on the incident
3. Types of analysis/decision support needed
4. Level of WFDSS/fire behavior tool knowledge on the incident
5. Accounting information – FireCode
6. Any trainee analysts that may be available to shadow Fire Behavior Specialists

When WFM RD&A staff or other analysts are working remotely to support incidents the unit or team requesting support should identify a primary contact to assist the technical specialists. For fire behavior analyses, the WFM RD&A analyst will need a contact for calibration of models and dissemination of the results. The identified person on the incident should understand the strategy taken on the fire and be knowledgeable with fire behavior support information such as vegetation, fuel types, general fire danger information and the representative weather stations (RAWS). WFDSS Decision support specialists will need to be in contact with agency administrators and other resource and fire management staff members to facilitate the decision process.

How can I develop Fire Behavior Specialist and/or WFDSS Decision expertise within my Geographic Area?

When requesting WFM RD&A assistance GA Editors should contact any local trainees that would be available to shadow assigned Fire Behavior or WFDSS Decision Specialists. This will facilitate expanding the pool of decision support personnel in the future.

GA Editors can direct interested trainees to the Mentee/Detailer/CWN page on the RD&A website to add their name to a list of available Fire Behavior /Decision Support Specialists. This will help identify trainees located in your area.

How does a GA Editor/GACC/Regional Office Request WFM RD&A Assistance to establish a Decision Support Center?

If managers within a geographic area decide that fire activity is such that local analysts and regional decision support capabilities are becoming taxed, the WFM RD&A is available to mobilize to assist that area. The GA Editors should coordinate with the GACC and call the WFM RD&A On-Call Coordinator at **208-473-8107.** The WFM RD&A On-Call Coordinator will discuss the areas needs to determine the number and type of specialists necessary to support the effort. Support may be provided on-site, in a virtual environment or as a combination depending on the situation.

What type(s) of information should be gathered before placing a call to the WFM RD&A for Decision Support Center mobilization?

- Summary of fire activity – types and numbers of incidents requiring support
- Potential duration of assignment
- Type of decision support needed – fire behavior analysis, decision document assistance, long term planning needs
- Primary contact personnel at the Geographic Area Level for the WFM RD&A Team Coordinator
- Location that the WFM RD&A will be working from
- Whether WFM RD&A analysts will be expected to travel to the field
- If known, who the primary local contacts will be for decision support personnel

What will be required to support a Decision Support Center?

The primary requirement for a Decision Support Center to be operational is either Broadband Internet Access or excellent cell phone coverage in order to utilize cellular broadband cards. Analysts that will work in a Decision Support Center come from all five federal fire agencies and some non-federal partners, so the ability for anyone, regardless of agency, to connect to the internet is important for production efficiency.

The following requirements should be considered if hosting decision and fire behavior support in your area. The actual needs of the Decision Support Center can be discussed prior to mobilization, but the list below is a good starting point.

Technical Support Requirements:
- Broadband Internet Access or Excellent Cell phone coverage
- Printer/Copier
- Fax Machine
- Power Strips/extension cords
- Quiet work area with 24 hour access

Once a Decision Support Center is established how will coordination with the GACCs, incidents etc. occur?

A Decision Support Team Lead (DSC Team Lead) will be assigned regardless of location and size of the organization. Depending on workload the DSC Team Lead may not be involved directly with the analyses but will manage priorities with the appropriate interested parties and establish work assignments to ensure information, analyses and decision documentation support is provided for the incidents in a timely manner. The assigned decision support personnel will work directly for the DSC Team Lead. A clear chain of command and prompt and thorough communication with the hosting unit is imperative.

A "Decision Support Center Letter of Expectations" has been developed to assist the DSC Team Lead and the host unit understand the capabilities of the Decision Support team as well as communicate needs of the host unit. Upon arrival the DSC Team Lead will review and sign the letter of expectations with the host unit in order to come to agreement on how business will be conducted throughout the duration of the assignment.

How will communication and information dissemination occur between the Decision Support Center and the local units and individual incidents?

Communication and information dissemination regarding WFDSS analysis tools, their inputs, outputs and results can be handled in a variety of ways depending on the needs of the requesting units, the location of the decision support personnel and available technology.

> Telephone communication: Some communication and information dissemination will occur through direct telephone communication and/or conference calls and may be combined with other methods below.

> E-Mail: Some communication may take place via e-mail although this may be inefficient large attachments are required to share information.

> E-Meeting Technology: Online meeting technology such as "Go To Meeting" or "Go To Webinar" is often used to share inputs, outputs and analysis results with local incident personnel.

> File Transfer Protocol (FTP) sites: FTP sites may also be used to pass additional information (outside of WFDSS) between requesting units and WFM RD&A personal. Assistance and instructions will be given for uploading, downloading and viewing files.

> On- site: In some instances it may be mutually beneficial for NFSDC staff to be physically located in the vicinity or at the requesting unit.

> Site Visits: In some instances WFM RD&A staff may be located off-site, but close enough to make site visits to share or gather information.

How will time charged to various incidents be tracked?

The WFM RD&A On-Call Coordinator or Decision Support Team Lead will keep an **Incident Tracking Spreadsheet** which will include the decision support personnel assigned, charge codes, hours worked and primary contact for each incident. This spreadsheet will be made available to individuals at the Geographic Area level for distribution to local units if requested.

How can I provide feedback to the WFM RD&A after support has been provided?

After the WFM RD&A has provided support, a link to an evaluation form will be sent to you: WFM RD&A Evaluation Form 2013. Please take some time to answer the questions and provide feedback for the support you received. This information will be important for improving operations in the future.

Section 3: Information for LOCAL UNITS (FMOs/Program Managers) – How to request Fire Behavior/WFDSS Decision Assistance

How do I request assistance with Fire Behavior analysis in WFDSS?

Fire Behavior analysis support can be obtained several different ways depending on the requesting unit's needs. In general local units should follow these steps to request assistance:

Fire Behavior analysis support is provided through the geographic area or the WFM RD&A when no local expertise is available. To request support for analyses:
- Contact your Geographic Area Editor. The GA editor will work with you to determine support needs and availability of local resources. If no analysts are available in the GA, the GA editor will contact the WFM RD&A On-Call Coordinator.
- If the GA editor is unavailable, call the WFM RD&A On-Call Coordinator at **208-473-8107**.
- Alternatively a request can be initiated within WFDSS using the "Request Fire Behavior Support" button found on the left menu. If no support is received within a reasonable timeframe, then the requester should follow the first two steps above.

How do I request assistance with WFDSS Decisions?

Assistance with WFDSS Decisions can be obtained several different ways depending on the requesting unit's needs. In general local units should follow these steps to request assistance:

1. Utilize the HELP menu in the WFDSS program
2. If the question cannot be answered using the online WFDSS HELP then a call should be placed to the WFDSS Help Desk at **1-866-224-7677 or 1-360-326-6002**
3. If the question is beyond the scope of the WFDSS HELP Desk then a local unit can contact their GA Editor
4. If the local unit cannot get help through the WFDSS Help Desk and is unable to communicate with their GA Editor then a call should be placed to the WFM RD&A On-Call Coordinator at **1-208-473-8107**

What types of questions can be answered with the Fire Behavior Analysis tools?

Example Questions about Risk Assessment:
- What is the probability that our fire will burn point X (reach a particular value) in a given time period?
- Where can we expect fire to "want" to move under specific weather conditions?

Example Questions about Fire Growth:
- When will the fire reach point (X) under specific weather conditions?
- When will the fire reach point (X) under forecasted weather conditions?

Example Questions about Fire Behavior:

- What Fire behavior can we expect under (X) weather across (X) area?
- What Fire behavior can we expect under (X) weather at (X) location?

What kind of information should I have available when requesting fire behavior analysis support?

- Know what questions you want to have answered about your fire (see previous question for examples) and understand that there are limitations and assumptions associated with the models
  - The WFDSS Help provides some brief information about the fire behavior models, what the output/results mean (interpretation), and assumptions and limitations of the models. In the WFDSS Help, search for topics called, "FAQs for Automated Basic Fire Behavior (BSB), Short Term Fire Behavior (STFB), Near Term Fire Behavior (NTFB)" and "FSPro Overview" or see the WFDSS Home Page for "Fire Behavior" documents.
- Have a point of contact available that is knowledgeable about the local fuels, weather stations and observed fire behavior that can provide feedback to the analyst on the fire behavior model runs
- Provide a timeframe for completing the analysis

If I am receiving support from the WFM RD&A remotely/virtually, how will I know how much time is being charged to my fire?

The decision support personnel will provide an OF-288, CTR or an Incident Summary Report that will include information about the fire behavior analyses conducted as well as timekeeping information.

Section 4: Information for ANALYSTS/SPECIALISTS: FIRE BEHAVIOR/WFDSS DECISIONS/GIS

Are there opportunities to be involved with the WFM RD&A as a Fire Behavior/WFDSS Decision/GIS specialist?

The WFM RD&A provides opportunities for fully qualified analysts and trainees to participate in two ways: Call When Needed and Details.

Call When Needed – The WFM RD&A maintains a list of people interested in supporting incidents when a request comes in. Often the support is virtual but occasionally travel to a decision support center may be requested. Commitments can be a few hours to a full 14 day assignment. Click here to read about the program and submit your name to the *CWN List of Analysts*

Details and Mentee assignments – Occasionally the WFM RD&A will have the opportunity for 14 day mentee assignments and longer duration detail assignments. Click here to read about the two programs and submit your name for consideration.

You can also contact your Geographic Area Editor or the WFM RD&A ON-Call Coordinator 208-473-8107 if you have questions

What types of assignments may I participate in?

The WFM RD&A provides support in a variety of ways:

- **Virtual/remote support:** Analysts will work from their home unit providing fire behavior modeling outputs and/or other decision support such as decision document assistance. Analysts provide this support using telephone, computer, web-conferencing and other technology to communicate with the hosting unit.
- **On Site:** Analysts travel to a hosting unit to provide fire decision support (fire behavior analyses, decision document assistance) with face to face communications.
- **Geographical area, regional, national support**: Analysts may be assigned to a Decision Support Center at a GACC, dispatch center, or other government office supporting multiple fires – regardless of agency. In this case the analyst would work directly for a Decision Support Team Lead providing support to individual fires or units.

How might I be contacted during the fire season?

- You may be contacted directly by a local unit if a Geographic Area Editor recognizes you as a local/regional resource. In this case a local unit has likely contacted the GA Editor for help and your name has been given to the local unit.
- In some cases a GA Editor may contact you and inquire about your availability to provide support. In this case you would be given the specifics of the request, the local incident contact and you would proceed with the request.
- The WFM RD&A On-Call coordinator may contact you to provide support to an incident or local unit. In this case you would be given the pertinent information and you would proceed with the request.
- The WFM RD&A On-Call coordinator may contact you to mobilize with WFM RD&A personnel to establish a Decision Support Center in a geographic area. In this case you would be dispatched (standard fire assignment dispatch procedures) and would report to the Decision Support Team Lead assigned to the Decision Support Center.

What will I need to bring if I am dispatched to assist at a Decision Support Center?
Consider the following items:

Required Items in *Bold Italic*		
Hardware	**Software (latest version)**	**Supporting Docs/Items**
Laptop	Wind Ninja	*Red Card*
External Hard drive	FlamMap	Fire Behavior Field Reference Guide
Broadband Card- or wireless capabilities	Google Earth Pro	40 Fuel Models (Scott & Burgan)
Multi-Card reader	Arc GIS	Red Book
Cell Phone	X-tools Pro	Fire Gear (pack, nomex, boots, hard hat, fire shelter, etc) *
Thumb/flash drives	FireFamily Plus	Calculator
Power strip	BehavePlus	Pens/Pencils
	FARSITE	Red bag (clothes, toiletries, etc) *
		If camping, tent, sleeping bag, pad *

*Check with the DSC team lead for specifics, you may need fire gear to travel to an incident to assess fuels, meet with the IMT's FBAN etc.

Who will I need to coordinate with if I am working remotely for an individual incident?

- If you are working for an individual incident or a local unit you will coordinate with the local point of contact provided to you when you were assigned to the incident.

- In addition, you must coordinate with the WFM RD&A On-Call Coordinator or the Geographic Area Editor, depending on who assigned you, throughout your support of the incident, especially as you complete analyses/decision support or are transitioning with another analyst. In some cases that incident may need more assistance in the future and you may not be available help in which case a different analyst will be assigned.

Who will I need to coordinate with if I am working remotely for a Decision Support Center?

1. You will work directly for the Decision Support Team Lead and you will be coordinating your workload with them – and -
2. You will coordinate with whoever your local point of contact is for your assigned analysis/decision support.

How should I record my time if I am working remotely?

Personnel assigned to an incident will charge to the incident charge code as determined by the WFM RD&A On-Call Coordinator, Decision Support Team Lead, local incident contact or Geographic Area.

- Check with the local unit or person who assigned you as to the preferred way of communicating this information. It may be necessary to fill out an OF-288 Firefighter Time Report or CTR etc.

PROVIDING FIRE BEHAVIOR SUPPORT AS A FIRE BEHAVIOR SPECIALIST, LTAN, FBAN, OR GSAN

What will be expected of me as an analyst assigned to work with the WFM RD&A?

- Analyst workload and priorities will be determined by the WFM RD&A On-Call coordinator or Decision Support Team Lead.
- Communicate directly with the local contact requesting decision support to understand their needs, and suggest additional or alternative products when appropriate.
- Communicate regularly with the assigned WFM RD&A Coordinator (On-Call or DSC Lead) to provide updates on your status and progress on analyses.   This will assist future analysts so they are well briefed of the situation.
- Whenever necessary, especially when working with field users unfamiliar with Fire Behavior modeling tools, document the interpretation of your fire behavior analyses within the WFDSS notes section. This is to ensure that the interpretation of the modeling outputs is communicated clearly and is documented so the users can easily understand the outputs.
- When working on a **fire behavior analysis** you should be competent in the following:
  - **Seek intelligence** from any on-site fire behavior personnel (local fire personnel, FBAN, FOBS, etc) to understand current and expected fire behavior, burn period, barriers to spread, and locally relevant weather stations.
  - **Landscape Calibration:** Analysts will be expected to critique and then modify and calibrate landscapes (LANDFIRE) to better match local fuel matrixes when necessary. Calibrating models to represent current and expected fire behavior is essential.

- o **Thoroughly Document** analysis activities directly in WFDSS – utilize the notes sections as much as possible utilizing the *"Annotations for Analysis in WFDSS"* .
- o **Fire Modeling:** Analysts will be expected to run fire behavior models such as Short Term, Near Term and FSPro, and be able to critique and interrupt the results. Running the models will include building or uploading ignition and barrier files.
  - **Calibrate** Near Term Fire Behavior and FSPro as recent fire perimeters will allow.
  - **Document** the rationale and analysis thought process in the "Analysis/Notes" portion of WFDSS, allowing future analysts or reviewers to follow your logic.
  - **RAWS Analysis:** Analysts will review RAWS data to determine accuracy, completeness and compatibility with the fire area.

What type of questions can I expect to be asked to answer with the Fire Behavior Analysis Tools?

Example Questions about Risk Assessment:
- What is the probability that our fire will burn point X (reach a particular value) in a given time period?
- Where can we expect fire to "want" to move under specific weather conditions?

Example Questions about Fire Growth:
- When will the fire reach point (X) under specific weather conditions?
- When will the fire reach point (X) under forecasted weather conditions?

Example Questions about Fire Behavior:
- What Fire behavior can we expect under (X) weather across (X) area?
- What Fire behavior can we expect under (X) weather at (X) location?

What will I need to document when completing Fire Behavior Analyses in WFDSS?

The primary place for documentation of fire behavior analyses is directly within WFDSS. Utilize *"Annotations for Analysis in WFDSS"*. This will help the host unit and analysts who transition with you to calibrate the model for future runs, as well as to provide documentation.

- Analysts should use the notes menu tab to document thought processes and rationale such as;
  - o Why a particular RAWS was used,
  - o Why fuel models were changed or various settings were modified.
  - o The notes should also be used to provide interpretation, express confidence, caveats and concerns with the model run.
- Depending on the experience of the local unit, analysts will be expected to document analysis information within the **WFDSS Notes Section** so the local unit can properly interpret the results in the absence of an analyst.

Should I have my fire behavior model runs reviewed before I accept them?

If you are assigned as an analyst by the WFM RD&A, the WFM RD&A On-Call Coordinator or Decision Support Team Lead will ask you to discuss your first few fire behavior analyses with another analyst skilled in the WFDSS fire behavior tools (LTAN, FBAN, or Super Analyst in WFDSS) when you first arrive at the Decision Support Center or begin a virtual assignment. This is to ensure that analyses are conducted in a consistent manner and that local

information and assumptions are accounted for when beginning an assignment. Any trainee LTAN or FBAN will need to have their analyses reviewed by a fully qualified individual before "accepting" an output in WFDSS.

If I am asked to review a fire behavior analysis what types of things should I look for?
An analysis review can include many things depending on the situation, some suggestions are as follows:
- Did the Analyst document their inputs adequately – do the documentation notes make sense and can you follow their rationale for their process?
- Was the analysis calibrated? If not, why? If so how close was the calibration? Does the calibration methodology make sense?
- Has the Analyst gathered as much intelligence as is reasonable given the time frames and constraints?
- Is the fire information current? Is the best available data utilized for the analysis?
- Was the Analyst able to acquire adequate local information and is this documented in the notes?

How should I close out with a LOCAL UNIT when I have finished my analyses?
As an analyst assigned to assist a local unit, you should complete the following upon conclusion of an assignment or analysis:
- Ensure that your analysis results and interpretation are understood by the primary contact.
- Ensure the local unit has your contact information or understands who you will be transitioning with if additional analysis is required
- If necessary fill out and send and email with analysis documentation/screen shots etc. to the local unit to ensure they have a record of analysis information
- If requested provide a copy of your timesheet (OF-288) or CTR so they can track incident costs.
- Send any documentation completed outside of WFDSS to local contact if requested.

How should I close out with the WFM RD&A when I have finished my analyses or assignment?
As an analyst assigned to assist the WFM RD&A, you should complete the following upon conclusion of an assignment or analysis.
- Fill out the 2014 WFM RD&A Support Log which summarizes information about the incident, days involved, analysis completed, etc. This information will be critical to evaluate the program and determine how to refine it in the future.
- Discuss any issues or problem areas with the On-Call Coordinator so other analysts that may work on your assigned incidents in the future can be advised.

WFDSS DECISION SPECIALIST

What will be expected of me if I am assisting with Publishing a Decision in WFDSS?
- Familiarization with the Decision process in WFDSS: navigation, content structure, editing, troubleshooting, etc.
- Understand Interagency partnerships and roles as they relate to Publishing Decisions in WFDSS and provide coordination as necessary.
- Recognize that the Published Decision is the agency administrator's responsibility and your role as support specialist is to facilitate approval and publishing.

- Understand how to incorporate supporting documentation into a Decision – ERC charts, fire behavior assessments, seasonal situation information, values inventory or values at risk, smoke concerns, etc.
- Understand how long term planning information is incorporated into a Decision
- Communicate regularly with the assigned WFM RD&A Coordinator (On-Call or DSC Lead) to provide updates on your status and progress.
- While working under the WFM RD&A, you may be asked to follow WFM RD&A guidelines that differ from your home unit, this is to provide consistency to the field when they are obtaining support from the WFM RD&A.

If I am working virtually, how do I coordinate with the On-Call Coordinator/Decision Support Center?

- The WFM RD&A Coordinator (On-Call or DSC Lead) will establish a check-in schedule (ie. Conference call or individual coordination), which will depend on the complexity of your situation as well as other coordination efforts being managed. Keep the WFM RD&A Coordinator (On-Call or DSC Lead) informed as questions or issues arise.
  - Keep the WFM RD&A Coordinator (On-Call or DSC Lead) informed of your progress and estimated publishing date.
  - Coordinate with the WFM RD&A Coordinator (On-Call or DSC Lead) if you need additional assistance with products for the decision.

What kind of support/oversight can I expect from the DSC Team Lead
- Due to the flexible nature of publishing a Decision in WFDSS, you can expect periodic review and input from the WFM RD&A Coordinator (On-Call or DSC Team Lead).

What will I need to document if I am helping with Publishing Decisions in WFDSS?
- The WFM RD&A encourages individuals providing Decision Publishing support to maintain a unit log when assisting the local units. This is generally for your own reference, but could be useful if future support is requested and information needs to be shared with other individuals providing assistance.